

In re Patent Application of
MATTHIAS ET AL.
Serial No. 09/850,306
Filed: May 7, 2001

curb forming material, and a lower hopper section. A curb extrusion mold is adjacent the lower hopper section for receiving the curb forming material therefrom to extrude a curb. Furthermore, a plunger and associated drive move the plunger along a path of travel including a forward position to force the curb forming material from the lower hopper section into and through the curb extrusion mold, an upward position so that the plunger extends into the upper hopper section, and a rearward position away from the curb mold and in the lower hopper section.

The drive may include a motor and a gear box having an output shaft connecting the motor to the plunger. The drive may further include an eccentric arm rotatably connecting the plunger to the output shaft, a first shaft mounted to the frame, a second shaft connected to a medial portion of the plunger, and a plurality of rocker arms pivotally connecting the second shaft to the first shaft.

II. The Claims are Patentable

Claims 1, 4-9, 12-14, 17 and 18 were rejected in as being anticipated by McKinnon (U.S. Patent No. 5,527,129) for the reasons set forth on pages 2 and 3 of the Office Action. Claims 2, 3, 10, 11, 15 and 16 were indicated as being directed to allowable subject matter. Applicants contend that Claims 1, 4-9, 12-14, 17 and 18 clearly define over the cited reference, and in view of the following remarks, favorable reconsideration of the rejection under 35 U.S.C. §102(b) is requested.

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Independent Claim 1 is directed to a curb forming machine at least including: a hopper carried by a frame and including an upper hopper section, for receiving curb forming material, and a lower hopper section; a curb extrusion mold adjacent the lower hopper section; and a plunger, and associated drive for moving the plunger along a path of travel including a forward position to force the curb forming material from the lower hopper section into and through the curb extrusion mold, an upward position so that the plunger extends into the upper hopper section, and a rearward position away from the curb mold and in the lower hopper section.

Independent method Claim 14 is similar to Claim 1 and includes moving a plunger along a path of travel including a forward position to force the curb forming material from the lower hopper section into and through the curb extrusion mold, an upward position so that the plunger extends into the upper hopper section, and a rearward position away from the curb mold and in the lower hopper section.

Also, independent Claim 8 includes: a plunger and associated drive for moving the plunger along a path of travel to force the curb forming material from the lower hopper section into and through the curb extrusion mold; the drive comprising a motor, a gear box connected to the motor, a first shaft mounted to the frame, a second shaft connected to a medial portion of the plunger, and a plurality of rocker arms pivotally connecting the second shaft to the first shaft.

It is these combinations of features which are not fairly taught or suggested in the cited reference and which patentably define over the cited reference.

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U.S. Patent No. 5,527,129 to McKinnon entitled "Elliptical orbit compaction curb forming and extruding apparatus" was cited by Applicants and discussed in the background of the invention of the present application. As recognized by the Examiner, the McKinnon extruder has a reciprocating compacting member which on the compaction stroke simultaneously moves forward to compact the concrete and lifts upward slightly, between $\frac{1}{4}$ and $\frac{5}{8}$ of an inch, just before the return stroke to force the compressed concrete against the upper surface of the slip form.

As pointed out by Applicants, one problem with these machines is referred to as concrete bridging. The concrete material being shoveled into the hopper is usually relatively dry so that it holds the form of the curb after being extruded from the machine. Unfortunately, this sometimes causes it to bridge from side to side in the hopper and not fall through into the chamber where the ram or auger is located to force the material through the mold. Because these machines are self-propelled via the curb being extruded through the mold, when bridging occurs, the machine stops and the operator has to manually break the concrete bridge with a shovel, for example. This results in wasted time and less efficient installation of the curb. Conversely, Applicants extruder forms continuous concrete edging while reducing voids, flat spots or weak areas in the extruded curb, and reduces the problems caused by concrete bridging in the hopper.

As the Examiner is aware, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single

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prior art reference. The identical invention must be shown in as complete detail as is contained in the claim.

Applicants maintain that the Examiner has misinterpreted the cited reference. Specifically, Applicants note that in McKinnon, the plunger 21 only moves slightly upward from $\frac{1}{4}$ to $\frac{5}{8}$ inches. Indeed, nothing in McKinnon suggests that the plunger moves upward into the upper hopper section 17b, as set forth in Claims 1 and 14.

Additionally, with respect to Claim 8, the Examiner asserts that McKinnon (FIG. 6) discloses a first shaft 30 indirectly attached to the frame, a second shaft (not numbered) connecting the connecting bar 33 to the guide roller 35, and a plurality of rocker arms 33 and 28 pivotally connecting the first and second shafts. Again, the Examiner has misinterpreted the cited reference in view of the actual claimed features. As discussed above, and with reference to FIGs. 2 and 3 of the present specification, Claim 8 sets forth that the drive moving the plunger 46 includes a first shaft 50 mounted to the frame 20, a second shaft 52 connected to a medial portion of the plunger 46, and a plurality of rocker arms 48 pivotally connecting the second shaft 52 to the first shaft 50. In McKinnon, the shaft 30 is the output shaft of the gear box, and the shaft connecting the connecting bar 33 to the guide roller 35 is not connected to a medial portion of the plunger 21 and/or 37.

Therefore, as specifically pointed out by Applicants, the reference to McKinnon does not expressly or inherently describe every element as set forth in the independent claims. Accordingly, McKinnon cannot anticipate

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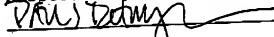
the claimed invention. Thus, the rejection under 35 U.S.C. §102(b) should be withdrawn. Furthermore, there is simply no teaching or suggestion in the cited reference to provide the combination of features as claimed.

It is submitted that the independent claims are patentable over the prior art. In view of the patentability of the independent claims, it is submitted that their dependent claims, which recite yet further distinguishing features are also patentable over the cited references for at least the reasons set forth above. Accordingly, these dependent claims require no further discussion herein.

III. Conclusion

In view of the foregoing remarks, it is respectfully submitted that the present application is in condition for allowance. An early notice thereof is earnestly solicited. If, after reviewing this Response, there are any remaining informalities which need to be resolved before the application can be passed to issue, the Examiner is invited and respectfully requested to contact the undersigned by telephone in order to resolve such informalities.

Respectfully submitted,


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